

# Vasofix® Safety

1 billion times protection



# The B. Braun Vasofix® Safety IV Catheter

## Passive Safety Technology that Reduces Needlestick Injuries

### Passive Safety Technology – Established worldwide:

B. Braun has minimised the risk of accidental needlestick injuries globally with more than 1 billion B. Braun Safety IV Catheters in use.

- 1,000,000,000 times protection against sharps injuries
- 1,000,000,000 times protection against infections like HIV
- 1,000,000,000 times protection against fear and uncertainty

Passive Safety Technology is incorporated into the Vasofix® Safety IV Catheter via an integrated fully automatic Safety Shield which protects the needle tip to prevent needlestick injuries.

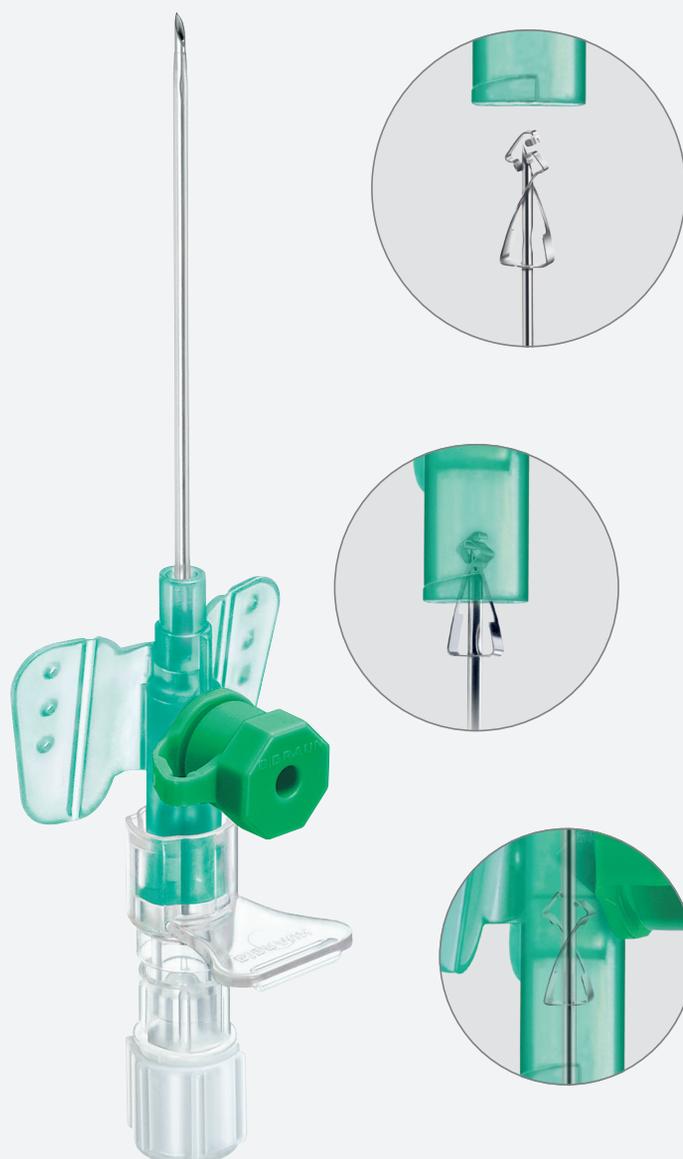
A recent study confirmed that passive safety engineered devices create significantly better protection for healthcare workers than those that require the user to activate the safety feature.<sup>6</sup>

In fact, passive safety devices were associated with the lowest needlestick injury rate and are most effective for needlestick injury prevention.<sup>1,6</sup>

### The Safety Shield of Vasofix® Safety

- Requires no user activation – no button, twists or clicks
- Automatically covers needle tip upon needle withdrawal
- Cannot be bypassed
- Eliminates risk of inadvertent activation during handling
- Stays in place through disposal

**The Passive Safety Shield protects the needle tip without any additional steps.**

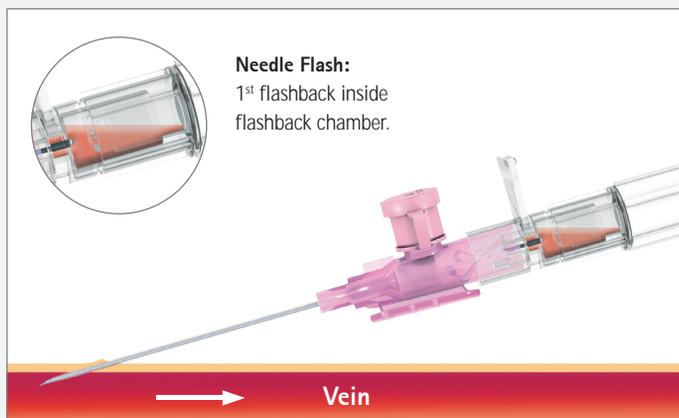


## Improves First Stick Success

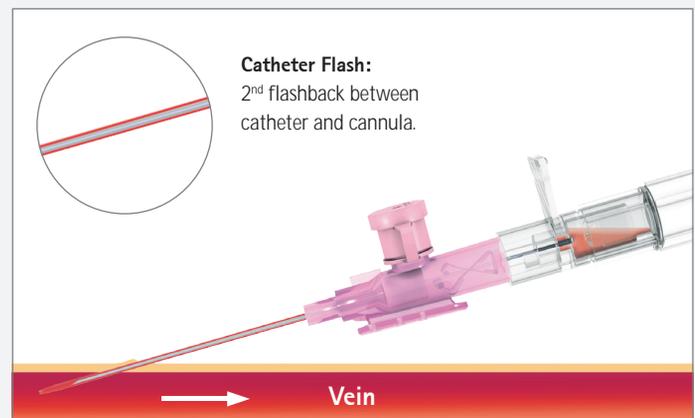
### Double Flashback Technology:

- Helps ensure first stick success and patient comfort through quick visualization of both needle and catheter flashback
- Promotes best practices by reducing the need to remove and reinsert the needle in order to confirm catheter placement, as may occur with other notched needle/crimped needle systems

Double Flashback Technology clearly indicates correct catheter placement and the success of the venipuncture. This safe confirmation maximises your confidence!



**Needle Flash:** 1<sup>st</sup> flashback confirms the needle is in the vein



**Catheter Flash:** 2<sup>nd</sup> flashback confirms the catheter is in the vein

### User benefits:

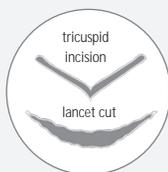
- Easy puncture at a wide range of angles
- Minimum effort of catheter insertion
- Self-activating Safety Shield – covers needle tip automatically after use
- Simplicity – looks and feels like a standard cannula

# Ensures Best Practice

Every product detail is designed for Best Practice:



**Universal Back Cut Bevel**



## Universal Back Cut Bevel

- Wide choice of insertion angles aids in accessing difficult veins
- Creates a V-shaped, tricuspid incision versus a lancet cut for easier catheter insertion, less tissue tearing, faster healing and reduced risk of infection<sup>7</sup>

**Catheter Material**



## Catheter Material

- Assures easy and smooth catheter advancement
- Available in polyurethane (PUR) for softer, more comfortable, longer in-dwelling performance and kink resistance, or FEP with firmer construction for arterial access. All are PVC-, DEHP- and Latex-free

**Flexible Wings**



## Flexible Wings

- Flexible wings adapt to skin surface for highest patient comfort
- Holes for ventilation

**Hygienic Injection Port**



## Hygienic Injection Port

- Quick and easy injection without interruption of infusion
- Needle-free injection eliminates any risk of a needlestick injury
- Possibility to close-off injection port to inhibit patient's access by turning the protective cap 180 degrees

**Flashback Chamber**



## Flashback Chamber

- Transparent flashback chamber allows quick visualization of blood
- Rapid confirmation of vein access
- Ergonomic grip design for a comfortable handling

**Removable Flash Plug & Removable Closing Cone**



## Removable Flash Plug & Removable Closing Cone

- Hydrophobic membrane avoids blood exposure
- Removable Flash Plug permits attachment of a syringe for aspiration and other special procedures



# Prevents the risk of accidental injuries

Have you or a colleague ever been stuck by a contaminated needle? The chances are high that you have!

At an average hospital, workers suffer from approximately 30 needlestick injuries per 100 hospital beds per year.<sup>2</sup>

Most common causes of sharp injuries are unexpected patient reactions, shortage of staff, rushing, distraction, collision with another healthcare worker or passing equipment.<sup>3,4</sup>

These factors cannot be controlled. Accidental needlestick injuries can happen to anyone!

These injuries may cause a number of serious and potentially fatal transmissions of hepatitis B or C viruses (HBV, HCV), or human immunodeficiency virus (HIV).<sup>4</sup>

In fact, nearly 90,000 healthcare workers worldwide contract blood-borne infections annually (HBV, HCV, HIV).<sup>5</sup>

Safety devices reduce the risk of a needlestick injury by 22%–100%.<sup>6</sup>

**Consider – not all safety devices can protect you!**

Main reasons for a needlestick injury with safety devices:<sup>6</sup>

- Safety mechanism has to be activated by the user
- Risky activation procedure
- Incomplete activation
- User noncompliance

These risks can be prevented by using a Passive Safety device such as Vasofix® Safety



## Needlestick Injury Rates According to Different Types of Safety-Engineered Devices: Results of a French Multicenter Study

Tosini W., et al. Needlestick Injury Rates According to Different Types of Safety-Engineered Devices: Results of a French Multicenter Study. *Infect Control and Hosp Epidemiol* April 2010; 31:402-407.

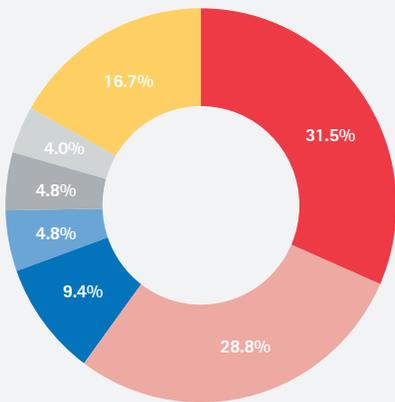
### The author concluded:

“We provide clear evidence that passive SEDs are more effective than active SEDs for NSI prevention. Passive devices require no input from the user, and this is particularly important when healthcare personnel are working long hours or night shifts, as well as in emergency situations, all of which are associated with a higher rate of NSIs. Passive devices eliminate the need for elaborate training. The cost of fully automated SEDs might be offset by lesser training requirements and by cost savings associated with a reduction in NSIs (eg, serological tests, counseling, postexposure prophylaxis, time off work, and treatment).”

# Needlestick in Australia

- At least 18,000 healthcare professionals suffer from a needle stick every year.<sup>8</sup>
- Numerous studies have shown that under reporting of NSIs range between 30%-80%, and thus the likely number of NSIs in Australia could be over 30,000 every year.<sup>9</sup>

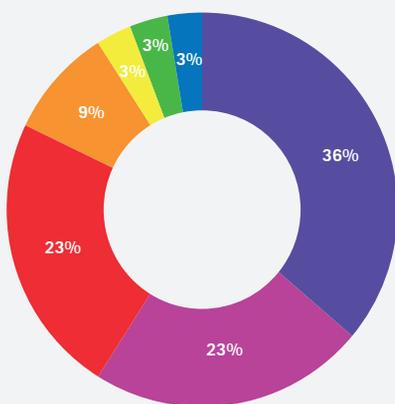
## Areas where sharp injuries most frequently occur<sup>10</sup>



- Patient room
- Operating room
- Emergency department
- Outpatient clinic / office
- Intensive / Critical care unit
- Procedure room
- Others

## Under Reporting

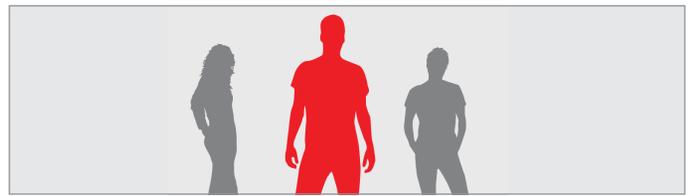
Despite the dangers of needle stick injury, up to 90% of all needle stick injuries remain unreported, reasons are stated below:<sup>11</sup>



- Too busy
- Follow up time takes too long
- Afraid of consequences to job
- Others
- Afraid of reporting to health insurance
- Forgetfulness
- Don't know NSI should be reported

## Risk of being infected from a contaminated needlestick injury

### Hepatitis B – 1 in 3



#### In Australia

- An estimated 200,000 people have chronic hepatitis B
- It is estimated that Hep B induced liver cancers and the deaths attributed to Hep B will increase by 2 to 3 fold by 2017<sup>9</sup>

### Hepatitis C – 1 in 30



#### In Australia

- More than 300,000 people are infected with HCV, around 226,700 cases develop into chronic hepatitis
- Approximately 11,000 new cases of chronic hepatitis C are diagnosed every year
- Around 75-85% of individuals with HCV develop chronic liver disease
- Hepatitis C is the leading cause of liver transplant, with 1 in 10 patients with chronic hepatitis C requiring a liver transplant<sup>9</sup>

### HIV – 1 in 300



#### In Australia

- At least 17,000 individuals are living with AIDS
- Around 1,000 people are diagnosed with HIV each year
- Approximately 75 people die every year from illnesses related to HIV infection<sup>9</sup>

## Treatment costs of NSIs to the Australian Healthcare System:

- \$173,000 - estimated lifetime treatment costs of a newly HIV-infected person in Australia.
- \$252 million per year - annual treatment cost of HCV or \$1.5 billion in the next 5 years.
- \$13.6 billion - lifetime cost of currently HCV infected group (maximum of 60 years).
- \$47.9 million - public hospital expenditure on hepatitis C treatment drugs excluding non-pharmaceutical costs.
- \$177,000 per procedure - cost of liver transplants with a long term follow up cost ranging between \$10,000-20,000 per year. Around 200 people receive liver transplants each year.

Australia has yet to adopt a nationally consistent approach to the use of Safety Engineered Medical Devices (SEMDs) in healthcare settings either through prescriptive legislation or policy.

Australian hospitals could gain an average cost savings of \$18.6 million per year. This estimate is very conservative and did not include treatment of chronic HCV and HIV. The cost savings would increase to at least \$36.8 million per year if costs of post-exposure prophylaxis (PEP) treatment and HCV treatment are taken into consideration.<sup>9</sup>

## SUMMARY:

The usefulness of Safety Engineered Medical Devices (SEMDs) is well established and healthcare organisations are encouraged to consider their use. (NSW Government. NSW Health Policy Directive: Sharps Injuries –Prevention in the NSW Public Health System 2007).

Post-implementation of SEMDs can reduce NSIs by over 80%, and, in conjunction with training and guidelines can reduce injuries by over 90%.

When accounting for the high risks of needle sticks injuries, Safety Engineered Medical Devices (SEMDs) prove to be extremely cost-effective.<sup>12</sup>

Cost saving factors of SEMDs include:

- Decreased nursing time as a result of product use
- Decreased 'downstream' costs (e.g. costs of sharps disposal)
- Avoidance of NSIs and associated costs, including direct and indirect costs of post-exposure treatment and management
  - Costs associated with psychological impact (mental and emotional distress suffered by injured individuals and families)
  - Reduced Quality of life
  - Other costs such as compensation claims and lost of productivity

Further to cost savings, the use and provision of SEMDs should be considered as an ethical issue of "who has the right to decide healthcare workers should risk injury".<sup>13</sup>

## References

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# Product Specifications

## Easy Identification

The clearly visible colour code on the packaging provides identification of the suitable gauge size and quick differentiation between product variations.



**Environmentally Friendly**  
 ■ Smaller device size reduces overall waste disposal

Size	Catheter Length Inch	Catheter Length mm	Flow Rate ml/min	Product Code
24G	3/4"	19	22	4269071S-03
22G	1"	25	36	4269098S-03
20G	1"	25	65	4269217S-03
20G	1 1/4"	33	61	4269110S-03
18G	1 1/4"	33	103	4269330S-03
18G	1 3/4"	45	96	4269136S-03
17G	1 3/4"	45	128	4269152S-03
16G	2"	50	196	4269179S-03
14G	2"	50	343	4269225S-03

Box quantity: 50 pcs | Carton quantity: 200 pcs (4x50pcs)